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NATURALIST NOTEBOOK

JUNE-JULY 1970

VOLUME VI

NO. 6

CONTENTS

Front Cover:

“Fiddleheads”

Photo by R. Dewire

CHILDREN'S SECTION

Nature Calendar	1
Footnotes To Nature	4
Along The Shore	6

ADULT SECTION

Articles of Adult Interest	8
Your Own Nature Jaunt	10
Pollution	12
Conn. Creatures	14
Field Notes	15

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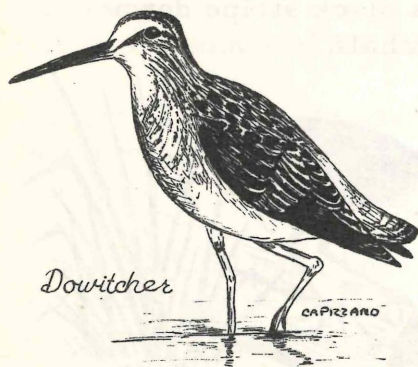
AUGUST and SEPTEMBER

The Months of Shorebirds

August and September are the months of the shore-bird migration. Almost all of these birds nest north of us and pass along our coast in great numbers in the fall. Mud-flats that are exposed at low tide are the best places to look for these travelers as they stop off to feed and rest before continuing their long migration south.

Many of them look alike and are difficult to identify. In order to learn these birds one should spend as much time as possible out looking at them and learning the small differences that separate many of them. Unlike the warblers, shorebirds are quite easy to observe, being always out in the open and, for the most part, quite unwary. They will often let you approach very closely, preferring to run rather than fly. Here are some of the more common ones to look for this fall.

The two groups of shorebirds are the plovers and sandpipers. Plovers tend to have more rounded heads and shorter bills than the sandpipers. The common plovers are the semipalmated plover, with a brown back, white front and black ring around the neck, the killdeer, which is larger and has two black rings around the neck, and the black-bellied plover, which is larger still and has a white tail. It has an all black front in the spring, but some will have lost their black color by now.

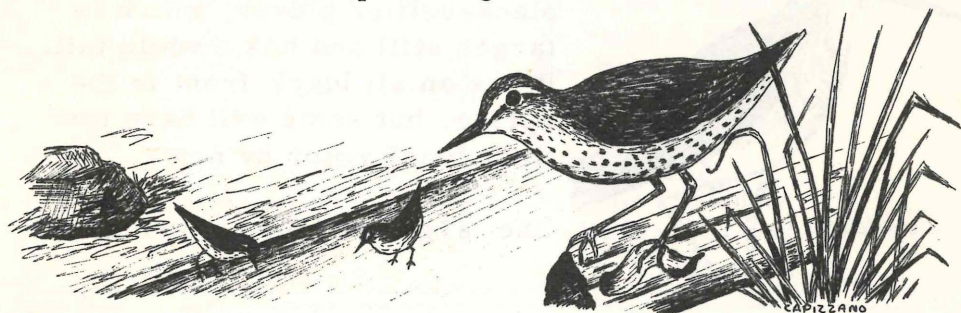


The large sandpipers include the

dowitcher, a bird that looks a lot like a snipe. It has a very long bill which it probes deep into the mud in search of worms and other invertebrates. Greater and lesser yellowlegs have their bright yellow legs to help identify them. As the name implies the lesser is smaller than the greater and has a much shorter bill. The most colorful of the shorebirds is the ruddy turnstone with its bright orange legs, black and white face pattern and orange or "ruddy" back.

Among the smaller shorebirds are the spotted sandpiper, (picture below) which rocks back and forth or "teeters," and the sanderling, which is the most abundant of all the shorebirds. They are very light with a black bill and black legs and blend in very well in sand or among light rocks.

The smallest shorebirds are often lumped into a single category and called "peeps" because of the calls they make. All of these species are starling-sized or a little smaller with brownish backs and light fronts. To tell them apart, one must look for certain distinguishing marks. Look at the legs first. Are they yellow or black? If yellow, then the bird is the least sandpiper - our smallest shorebird. If they are black they could be one of several species. The most common is the semipalmated sandpiper. It has a grayish brown back. Two others that look like it are the western and white-rumped sandpipers. The western has a longer bill that droops at the tip and may often have a patch of orange on each wing. The white-rumped sandpiper has a complete white rump. All other shorebirds have a black stripe down the center of the rump cutting it in half.



The August-September **CALENDAR**

August is the month of fields in flower and singing insects.

September is the month of migrating birds and cool mornings.

August 5... Thistles are in flower.

September 4... Hay fever season is at its peak.

August 6... Brilliant red cardinal flowers blossom in wet areas.

September 10... Red-wing blackbirds migrate in huge flocks in the evening.

August 8... Swamp mallow flowers in our marshes.

September 11... Fall warbler migration is at a peak.

August 10... The shore-bird migration reaches a peak.

September 14... The first slate-colored juncos arrive.

August 11... Pied-billed grebes return from the north.

September 15... The full harvest moon.

August 16... The full sturgeon moon.

September 22... White-throated sparrows arrive in the woods.

August 16... A partial eclipse of the full moon. At its maximum 41% will be covered. This will occur at about 10:23 P. M.

September 23... Fall begins at 5:59 A. M.

August 23... Nighthawks begin migrating through the area.

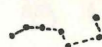
September 26... Night equals day.

August 27... Loggerhead shrikes sit on fences and wires looking for prey.

September 27... Myrtle warblers - our winter resident warbler - arrives from the North.



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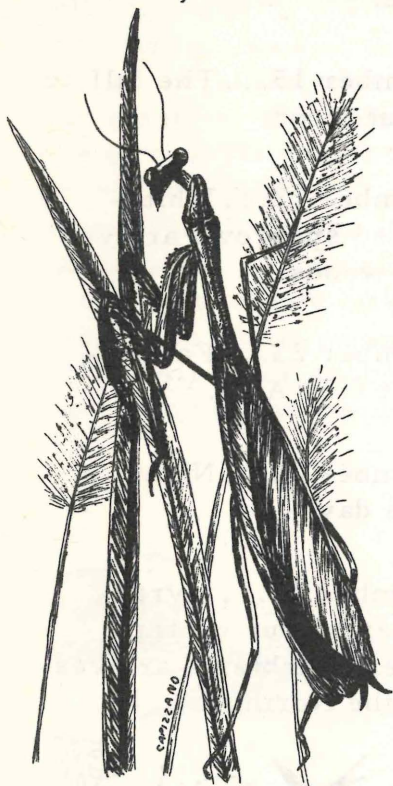


FOOTNOTES TO NATURE

by MARY JEAN DEWIRE

THE PRAYING MANTIS

If you were to take a walk through a grassy field during the next few weeks, you would see many of Nature's signs that tell us summer days are swiftly coming to an end. The bright green field of spring is now a colorful display of white, gold, and purple as the last wild-flowers come into bloom. These flowers, which include asters, goldenrod, thistle, and Joe-pye-weed are the center of activity for the many animals that live in the field. Monarch butterflies alight on goldenrod as they pause to rest during their long migration. Golden garden spiders weave intricate and delicate webs between the flowers. Katydids and grasshoppers jump about eating assorted grasses and leaves. All of these creatures are, in turn, hunted by a mini-monster known as the praying mantis.



One of the largest insects found in Connecticut, the praying mantis is $3\frac{1}{2}$ inches long. Camouflaged among leaves and stems by its green and brown coloring, the mantis lies in wait for unsuspecting insects with its enlarged forelegs held up partly folded. This "praying position" has given the insect its common name.

The forelegs are attached to the front section of the body in such a way that the insect can turn rapidly in a wide arc to grasp its victim. The praying mantis can also look over its shoulder - the only insect capable of doing this! Such flexibility enables the mantis to be very beneficial to man since it devours grasshoppers,

caterpillars, weevils, and others that are destructive to our crops.

In the fall, the female lays her eggs in a frothy mass that dries like a paper-mache foam on weed sticks or twigs. The number of eggs in a case may vary from a few dozen to 300 or more. Newly hatched mantises in the early summer generally resemble their parents although they do not have the transparent wings.



Some people try to hatch the eggs prematurely indoors during the winter or early spring, but it is difficult to keep the young mantises alive since they will only eat live food.

The praying mantis is not a native species but was introduced from Europe over fifty years ago. It is now well established here in the Northeast. There are more than 1,500 species of mantis throughout the world. Of these about 20 are native to the United States and are found mostly in the South and West.

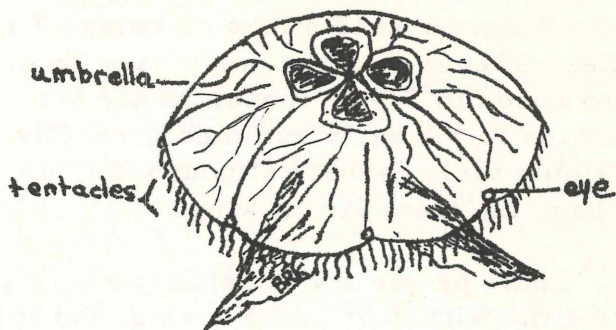
Be sure to look for this insect in the fields this summer. Do not harm it though, for despite its grotesque appearance, the praying mantis is a friend of us all.

A RARE BIRD DISCOVERY: A purple gallinule has been found at Dodge Pond in Niantic. Normally one would have to go to Florida in order to see one. How or why it is here is anybody's guess. The gallinule had only been recorded 9 times before in history in Connecticut. It walks along the tops of lily pads with its enormous feet giving it support. Quite tame, it would allow close approach and many pictures were taken. As this newsletter goes to press the bird is still present. Anyone wishing to see it can contact us for further information. ED.

ALONG THE SHORE

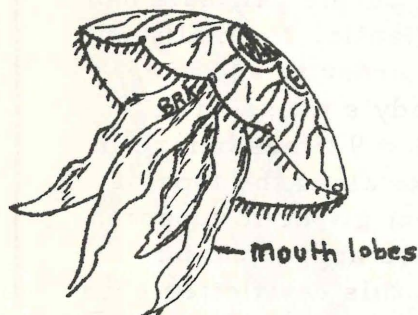
by BARBARA KASHANSKI

THE MOON JELLYFISH



During the summer months and early fall is the time to see the beautiful little moon jellyfishes gently floating along with the current or washed up on the beaches after heavy storms. Although you probably don't like to swim with these little animals or enjoy stepping on them by mistake, you might find them very interesting if you know more about them.

The moon or white jellyfish grows to be 8 to 10 inches across the jellied body part which is called the umbrella. The umbrella is transparent and around the edge is a fringe of short tentacles or feelers. On these feelers are many tiny darts that are filled with poison.



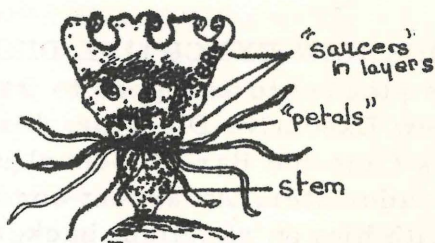
When a small animal touches one of the short tentacles it is shot with poison and paralyzed and then eaten by the jellyfish. The mouth and stomach are found underneath the center of the umbrella, and long "mouth arms" or lobes hang down below the mouth and look something like the handle of the umbrella. These lobes also

have stinging cells to help catch food for the jellyfish. On top of the umbrella there is a very pretty design that looks

like a four leaf clover, and if you look carefully you will see that the edge of the umbrella has eight notches and that in each notch is a little red dot that is an eye. These eyes can't see shapes clearly but can tell light from dark.

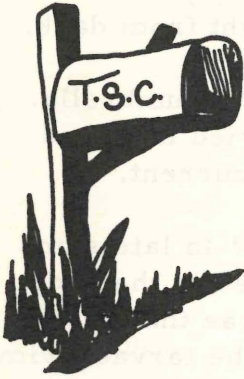
Jellyfish swim by opening and closing the umbrella. They are weak swimmers and are often carried back and forth by the tides or drift along on a strong current.

The moon jellyfish lives only one year! In late summer or early fall the eggs that have developed in the body of the female turn into tiny pear-shaped larvae that are covered with hairs. By moving these hairs the larvae swim about. A short while after leaving the mother jellyfish these very small animals sink to the bottom and become attached to a rock, shell, or seaweed. Soon they look more like little plants than animals, for they have a "stem" and the top of the stem is shaped something like a little flower.



The thin "petals" of the "flower" are the feelers that catch food for this tiny and weird animal. The little jellyfish stays attached during the winter and by spring is about $\frac{1}{4}$ of an inch tall. Now a strange thing begins to happen. Deep creases begin to appear in the upper part of the flower body and soon there are layers of notched saucers on top of the stem. Soon the top saucer breaks loose, turns over and swims away - a new little jellyfish. One by one the other layers separate and swim away. So from one tiny jellyfish egg many little jellyfish develop. By the end of April they are 1" in diameter and by June are full size. In July the eggs are laid, and they hatch into the hairy larvae by September. After the larvae hatch the mother jellyfish is very weak and is washed ashore or battered to death by the waves. So as the parent jellyfish die the new little larvae are ready to take over and the wonderful life cycle starts all over again.

ARTICLES OF ADULT INTEREST



We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible

OUR NEW EXECUTIVE DIRECTOR: The Science Center is pleased to announce to its members that it has hired a new Executive Director. Mr. Robert S. Treat comes to us from the Barlow School in New York where he was headmaster. An ardent conservationist, Mr. Treat brings with him an excellent background in education and administration. He will arrive with his wife and children on August 1st to take up residence in the Akeley House at the Peace Sanctuary. Mr. Treat will begin his duties as Director in mid-August.

A CALL FOR HELP: On Saturday, August 22nd, from 10:00 to 4:00 the Center will hold a Work Day at our New Building on Gallows Lane. Prior to putting down topsoil, the ground around the building has to have some rocks and roots removed, certain areas leveled off, and the ground loosened up with rakes where heavy equipment has packed it down.

Here is a chance for Center members to help get their building ready. The staff of the Connecticut Arboretum has offered to help us in landscaping and will provide native shrubbery around the building. None of this can be done until the site is prepared. For one or two people this would be long hard work, but for a sizeable work

force of Center members much could be accomplished. Therefore, come to the New Building Site any time between 10:00 and 4:00 P.M. on the 22nd. Bring a rake or shovel (a potato rake is best of all) and spend some time with us. The more people that come, the less work all will have to do. Cold soda will be provided by the Center. COME OUT AND HELP!

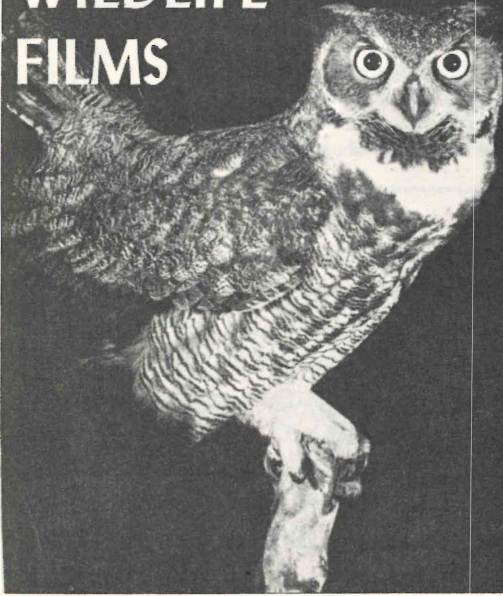
FRIEND OF THE CENTER: Mrs. Charles Chapin has joined the growing list of Friends of the Center. We welcome her and hope that others will also join.

TERN SIGHTINGS: In late June, terns that nest on Great Gull Island in Long Island Sound had their tails dyed. Roseate terns have red tails and common terns have blue tails. If you see any of these birds please send us the following information: Tail color, location of sighting, date, and what the bird was doing (flying, fishing, resting, etc.). Your report will help greatly.

NEW ARBORETUM BULLETIN: The Connecticut Arboretum Association has published a new bulletin entitled "Preserving our Fresh Water Wetlands". This excellent and timely booklet is available at the Center. List price is \$1.00 but it will be 90¢ for Center members.

WILDLIFE FILMS: This year's films take us world-wide. Our first film takes us on a beautiful natural history tour of England with Mr. C.P. Lyons. Our next two films return us to the United States to two of our National Parks. Kent Durden's "Death Valley - Land of Contrast" shows the great variety of life that exists in an area that the average person considers to be quite desolate. "The Real Yellowstone" by Fran William Hall shows us much of this magnificent park that most tourists never see. Finally we will go off to New Zealand - a land of some of our most unique and bizarre creatures as Dr. Olin Sewall Pettingill shows us a "New Zealand Spring". It should be a great season and we hope to see you there. Brochures and ticket request forms will be mailed out in September.

AUDUBON WILDLIFE FILMS



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1970-71 Program

Sunday, October 25, 1970
Sunday, November 15, 1970
Sunday, January 3, 1971
Sunday, April 4, 1971

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Mr. C.P. Lyons
"This Earth, This Realm,
This England"

Mr. Kent Durden
"Death Valley - Land of
Contrast"

Mr. Fran William Hall
"The Real Yellowstone"

Dr. Olin S. Pettingill
"New Zealand Spring"

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Student..... 2.50

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Student..... 3.00

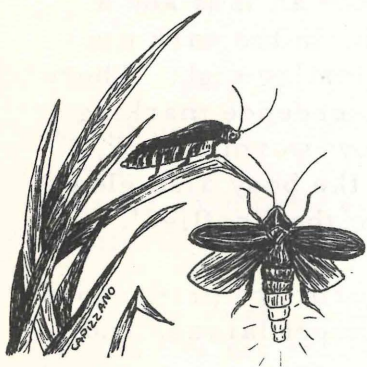
For further information,
Contact the Science Center

CONNECTICUT CREATURES

by MIKE WALKER

NATURE'S NIGHT LIGHTS

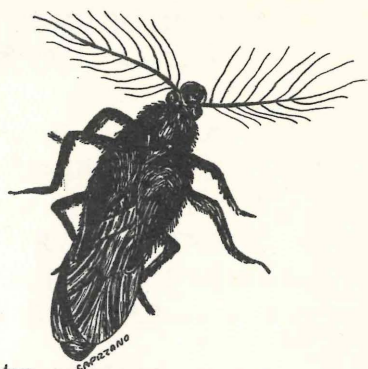
We are constantly being reminded of the vast numbers of insects in the world around us, and not always in ways that we find pleasant. Here in Connecticut however, there are two kinds of insects which call attention to their presence in a striking and pleasing manner.



The first of these is the ubiquitous and familiar firefly. Fireflies, actually a type of beetle, emit regular flashes of light from segments at the tip of their abdomen. The luminescence, which is a highly efficient "cold" type of light, is produced by the interaction of two special chemicals manufactured within the firefly's body. The primary purpose of the light appears to be to enable male and female fireflies to find each other so that mating may take place. The female, whose "lamp" is not as bright as the male's, usually remains among the weeds and grasses, while the male flies overhead signalling his presence with bright flashes of light.

The second type of luminous insect is the glow-worm. It is much less common than the firefly and consequently unknown to many people.

In the case of the glow-worm, which is a beetle "cousin" of the firefly, only the wingless female and the larval stages of both sexes produce a luminescence. The adult male has wings and is able to fly. On its head are a pair of very large and branched antennae. The female on the other hand, never develops beyond the larval stage, even laying her eggs while in it. The light is emitted as a constant glow, which gives it a rather eerie quality.



Recently, after a heavy thunderstorm, a friend of mine found a larval glow-worm on the grass beneath a lilac.



The creature is a flat bodied hairless worm, with a straw-yellow segmented body. The head is small, and there are three pairs of legs on the underside, not far behind the head. The insect is about an inch and a quarter in length. In the dark the animal is a fascinating sight. There is a line of luminescence marking

the border of each segment on the glow-worm's back, and a row of spots down each side of the body also glows. The color is a frost green, similar to the fireflies'.

Both the firefly and the glow-worm are predaceous insects, feeding on aphids, various insect larvae, and other small invertebrates.

It would be interesting to know how common these glow-worms are in this area. Anyone finding one of these should contact me at the Science Center.

An Introduction to Pollution

by MARTHA CAPIZZANO



OUR EARTH... LOVE IT OR LOSE IT!

We human beings who destroy our earth are now responsible for the clean-up task. A concentrated effort by every individual is imperative, and starting at home is first. There are several simple steps you can follow:

1. USE LOW-PHOSPHATE LAUNDRY PRODUCTS.

Do not use "detergents". Use a combination of soap powder or soap flakes, plus baking soda. It is not only cheaper than detergents, but is as effective for a "whiter than white" wash.

The next "Naturalist Notebook" will have a detailed article dealing entirely with this subject.

2. AVOID NON-RETURNABLE METAL CANS. If

you must continue to use them, however, crush or flatten them. This summer, the Reynolds Aluminum company will pay \$100.00 per ton to truck them to New York City. (That equals about $\frac{1}{2}$ ¢ per can.)

3. DON'T USE NO-DEPOSIT, NON-RETURNABLE

BOTTLES. Write to your legislators urgently requesting that they be banned from Connecticut. Buy milk in glass returnable bottles.

4. DON'T USE PESTICIDES OR BROAD-SCALE CHEMICAL SPRAYS. These are dangerous to your health and to wildlife.

5. DON'T BURN LEAVES OR THROW AWAY ORGANIC GARBAGE. Compost any organic material, and this will yield a safe, free fertilizer for your lawn, vegetables and flowers next year.

6. RECYCLE PAPER AND PAPER PRODUCTS. Do not waste paper. (About 52% of all garbage and waste are paper products.) Take a permanent bag with you to the supermarket and refuse to take paper bags or excess wrapping such as prepackaged meats, vegetables, fruits, and double packaging on innumerable products. Simply leave them at the store with the manager. The Salvation Army collects newspapers and magazines.

7. DON'T USE PLASTIC. When burned, it produces highly toxic hydrocarbons. Also avoid styrofoam cups, plastic utensils, cups, and other containers. Do use glass containers or aluminum foil; and REUSE THESE. Old aluminum foil can be saved with your aluminum cans.

8. CUT DOWN ON THE USE OF YOUR AUTO-MOBILE. The internal combustion engine, not including trucks and buses, produces over 60% of all air pollution. If possible, use public mass transportation, but if you must travel by car, form car pools, and install an anti-pollution device on your car.

If these suggestions are followed by each individual who reads them, a large step will have been taken in curbing our ecological crisis.

Please save Earth.

FIELD NOTES

MAY 15 - JULY 15

From June 1st on, this period becomes one of the slowest of the year. The spring migration has drawn to a close and the fall migration has not really begun. Also, many birds become very secretive during the nesting period. The Big Day held on May 16th ended up with a record total of 118 species of birds found.

Old Lyme and East Haddam: At Great Island in Old Lyme, a GREATER YELLOWLEGS that was almost black in color caused a great deal of excitement among local birders before its true identity was discovered. Nonetheless it is a very unique plumage coloration for this species. At Devil's Hopyard, the ACADIAN FLYCATCHERS have returned for the third year.

Waterford and New London: TULIP TREES were in flower in the Arboretum June 20th and CHICORY bloomed July 5th in Waterford. Two of the best birds of the Big Day were found at Harkness Park. One was a LOUISIANA HERON and the other a RUDDY DUCK. The heron was joined by a second of its kind the following day. A female BUFFLEHEAD is still present there. Four DOWITCHERS on the mudflat at Harkness on July 6th signal the start of the fall shorebird migration. A BROWN CREEPER was calling in the Arboretum on June 20th.

Stonington and Mystic: INDIAN PIPES flowered at the Peace Sanctuary on June 29th and MILKWEED flowered there on July 4th. At Barn Island a LESSER SCAUP on May 31st was quite late. The presence of COMMON GALLINULES and BLUE-WINGED TEAL into June there indicate possible nestings. The teal were present in July also. CANADA GEESE did nest successfully at Barn Island as at least a dozen young were seen on June

21st. Both the LEAST and AMERICAN BITTERNS were seen there on July 8th. Only one young MUTE SWAN survived at Barn Island from four known nesting pairs and a total of 17 hatchlings. A MOURNING WARBLER present on June 7th was an excellent discovery.

Rhode Island Shoreline: At Napatree Point a flight of PHALAROPES, both RED and NORTHERN came along the shore with a storm on May 17th. About 150 were seen which is way below the several thousand seen last May. There were 5 GLOSSY IBIS at Quonochontaug on June 20th.

Contributors to this column were: Mr. & Mrs. Kenneth Bates, Grace Bissell, Martha Cappizano, Bob & Mary Jean Dewire, Rey Larson, Eloise Saunders and Mike Walker.

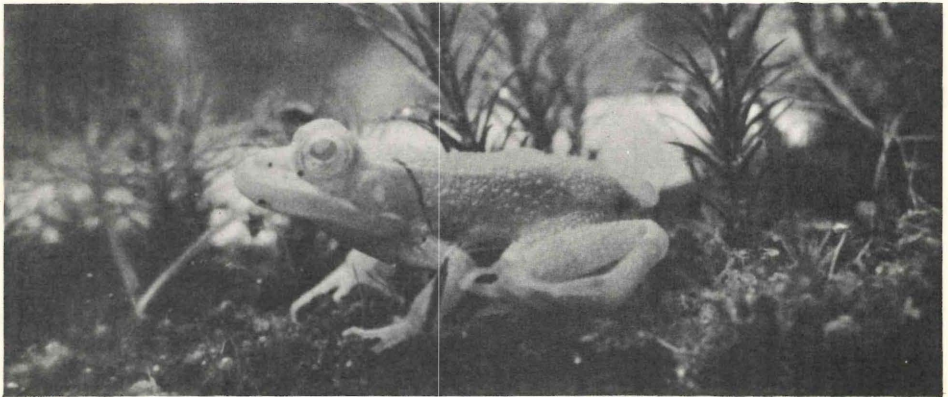


Photo by R. Dewire

A new addition to the Thames Science Center's exhibits is an albino pickerel frog. Found in Groton this past spring by a student at Cutler Junior High School, it was donated in June to the Center. Now about $1\frac{1}{4}$ " long and growing, it has the characteristic poor eyesight of albinism, and therefore has difficulty eating. It has adjusted well to captivity and this is good, for a creature such as this which has trouble seeing and whose light color destroys its ability to hide is surely doomed in the wild. The frog will be on display in our New Building.

Activities for August and September

August 19.....6:15 P.M. Harkness State Park. A trip to see the marsh and formal gardens in the park. Meet at the parking lot.

August 22.....10:00 - 4:00 Work Day at the New Building. See page 8 for details.

August 26.....6:15 P.M. Barn Island. A trip to see the fall shorebird migration. Meet at the State Boat Landing.

September 16...6:15 P.M. Harkness State Park. Our last evening trip of the year. Meet in the parking lot.

September 19 ..All Day. Mt. Tom, Mass. A trip to see
or 20 Hawk Migration. Interested persons should phone the Center for further details. Date will depend on wind conditions.

September 26...10:00 A.M. Junior Members' Field Trip. "Investigating a Tidal Pool." Grade 4 - 6 members only. Limit of 15 children. Phone the Center to register (443-4295).

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NATURALIST NOTEBOOK

Published by the

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New London, Connecticut 06320
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MICHAEL WALKER — *Curator*

The NATURALIST NOTEBOOK is published 10 times annually. Subscription available through membership only.

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Editor

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